JOURNAL, BOMBAY NATURAL HIST. SOCIETY, Vol. 65 (2) 502

31 mm. collected at Vityaz Station no. 5185 on 27-vii-62 (24° 34' S., 108° 20' E., depth 0-200 m.).

In the literature there are records of adults and juveniles of P. sedentaria (Forskål) inhabiting the empty mantles of pelagic tunicates (Chevreux & Fage 1925, Mogk 1927, Barnard 1932, 1937, and Nagabhushanam 1960). However, there appears to be no record of the young forms of P. colletti Bovallius inhabiting the empty mantles of tunicates. Moreover, the duration of stay of the young instars and the size attained within the mantle-cavity by the species of the genus Phronima other than P. sedentaria (Forsk.), is not known. Therefore it is considered worthwhile recording, this interesting relationship, and the measurements of the adult and juveniles obtained. More information on the stages at which the juveniles desert the mantle in the different species of the genus Phronima would be worth recording.

ZOOLOGICAL SURVEY OF INDIA, CALCUTTA-16. July 7, 1967.

A. DANIEL K. V. SURYA RAO

REFERENCES

BARNARD, K. H. (1932): Amphipoda. *Discovery Reports* **5**: 1-174. (1937): Amphipoda. *John Murray Exp. Sci. Rep.*, **4** (6): 131-201. CHEVREUX, E. & FAGE, L. (1925): Amphipodes. *Faune de France* **9**: 1-488. Moort H. (1972): Die Phroneomiden MOGK, H. (1927): Die Phronomiden der Deutschen Sudpolar Expedition, 1901-1903. Deutsch. Sudpol. Exp. 19. Zool. 11 : 125-144.

NAGABHUSHANAM, A. K. (1960): Observations on some pelagic tunicates

 J. Mar. biol. Ass. India, 2 (2): 2.
STEPHENSON, K. (1924): Hyperiidea-Amphipoda (Pt. 2. Paraphronimidae, Hyperiidae, Dairellidae, Phronomidae, Architemeriidae). Drug. Core Anchylomeridae)—Dan. Ocean Exp. 1908-1910 to Mediterranean and adjacent Exp. Seas, 2 D. 4: 71-149.

22. NOTE ON MASTIGOCHIRUS QUADRILOBATUS MIERS, AN ANOMURAN (CRUSTACEA : DECAPODA) NEW TO INDIA

Mastigochirus quadrilobatus Miers is an anomuran which has not been reported from India so far. During the course of our study on the systematics of the anomuran fauna of Waltair coast, 10 specimens of M. quadrilobatus were collected from Lawson's Bay area, Waltair. In this paper a short account of the diagnostic features of M. quadrilobatus is given.

Mastigochirus quadrilobatus Miers 1879

Diagnosis. Frontal margin with two submedian lobes flanked by a lateral lobe which is round and projects slightly beyond the median

MISCELLANEOUS NOTES

lobes. Lateral margin with submarginal series of short transverse setiferous pits. Antennules and antenna short, third maxilliped rather slender. First pair of legs very long and very slender with the last joint especially greatly elongated and multiarticulate.

Measurement. Carapace length : 12.5 mm. Distribution. Philippines.

Our thanks are due to Dr. Janet Haig of California for her suggestions and to Prof. P. N. Ganapati for kindly giving facilities.

ZOOLOGY DEPARTMENT, MARATHWADA UNIVERSITY, AURANGABAD. March 16, 1968.

R. SAROJINI R. NAGABHUSHANAM

23. FORMS OF DANAUS CHRYSIPPUS L.

I was interested to learn from J. P. Donahue's 'An Annotated List of the Butterflies of Delhi' (1967, J. Bombay nat. Hist. Soc., 64 : 40) that an example of f. alcippoides Moore had been caught there fairly recently and that he considered it only a matter of time before f. dorippus Klug turned up also. In my twenty-four years collecting in India—in the Punjab, the United Provinces and Bengal—I never saw an example of either form. I did, however, have the good fortune to rear an example of the far rarer f. amplifascia Talb. from a chance found larva in Calcutta. Talbot recorded only five known specimens of this form, not including mine, and, for those who are unacquainted with it, it can be described briefly as having the white spots of the pre-apical band extended inwards along the interspaces to the discocellular.

Although there are constant differences between the African, Asiatic and Australian races of *chrysippus* in the pre-apical markings of the forewing and in the extent of the white in the hindwing of ff. *alcippus* Cr. and *alcippoides* Moore, I consider that there are basically four forms, namely:

- chrysippus L., with black and white pre-apical marking in the forewing and brown hindwing.
- dorippus Klug, with no black and white pre-apical marking in the forewing and brown hindwing.

alcippus Cr., with black and white pre-apical marking in the forewing and white hindwing.

albinus Lanz., with no black and white pre-apical marking in the forewing and white hindwing,